

Biosolids Annual Management Review of EMS Performance

Reporting Period: August 1, 2012-July 31, 2013

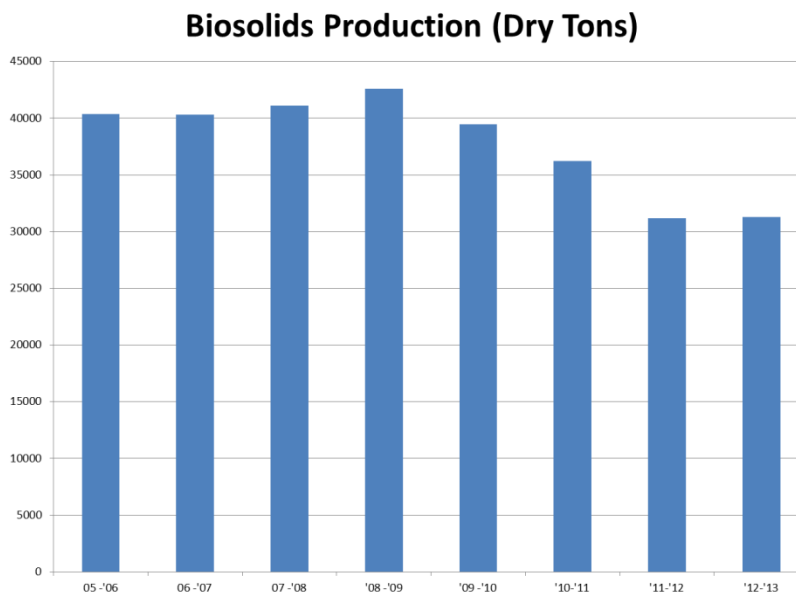
Date: October 14, 2013

Time: 1:30pm

Present:	<u>Name</u>	<u>Representing</u>
	Steve Nutter	City of Fort Worth
	Jerry Pressley	City of Fort Worth
	Ana Pena	City of Fort Worth
	Laly Joseph	City of Fort Worth
	Stacy Walters	City of Fort Worth
	Magan Lersch	City of Fort Worth
	Ben Davis	Renda Environmental, Inc.

Accomplishments since last review

- 31,297.35 dry tons (without lime) were produced
- 34409.11 tons (with lime) were applied to 5 counties.
- Note: 2008-2009 was a high production year, since then dry tons produced has decreased and stabilized.



Changes to policy

- There have been no changes to the Biosolids Policy

The City of Fort Worth is committed to:

Sustaining the 100 percent beneficial reuse/recycling of exceptional quality (EQ), Class A biosolids produced at Village Creek Wastewater Treatment Plant that comply with all federal, state and local requirements and are consistent with the NBP Code of Good Practice.

Maintaining a diversified beneficial use of biosolids program in which the City and our Contractor will continue with effective control and compliance to investigate and implement feasible, innovative and cost effective options in protecting the health and safety of the public and the environment.

Goals & Objectives-Advancements towards existing goals and objectives and identifying “New” goals and objectives

- Possibly modify the “Milestone” column to be more specific
- Goal: Implementation of New Turbine Waste Heat Recovery System
 - Goal should be closed out after this month once the system undergoes a full shut down for final testing.
- Goal: Conduct Grit Control Study
 - Have not heard back from HDR for final data analysis and report.
- Goal: Create a Biosolids Master Plan
 - While the Plan will be looking at solutions that are long-term, Village Creek is also looking for short-term solutions for issues going on right now (odors).
- Goal: Pilot Project-Aeration of Holding Tank 1 to Reduce Odors Associated with Biosolids Land Application
 - The installation was completed in August. The effect the aeration has on the odors has yet to be determined, but it is thought the mixing alone will be beneficial in reducing stratification.
- Goal: Study to Evaluate Biosolids Odors Associated with High Strength Wastes
 - Samples were collected before lime, after lime, after 24 hour storage time, and at the land application site in order to evaluate the effect lime has on odors. The results have shown that samples with lime, and more specifically the samples that had been from the 24 hour piles and the land app. site were significantly higher for certain parameters (Ammonia, Mercaptans, Triethylamines, H₂S, Dimethylsulfides). For general odor descriptions, the samples after lime were always worse with the 24 hour and land app. samples being the worst.
 - Samples from the digesters were collected to determine the effect of high strength wastes on biosolids odors. The same gas detection tests that were performed on the limed/unlimed samples were used for the codigestion samples. There does not seem to be much difference between those samples that receive and do not receive high strength wastes. It appears that codigestion is not a major cause of biosolids odors.
- Goal: Assess Effectiveness of BIOGLOX on Biosolids Odors
 - The installation of the batch tank for the Bioglox project is almost complete.
 - Odor evaluation will be conducted on samples with different concentrations of Bioglox and comparing limed and unlimed samples.
- Goal: Increase Biosolids Outreach Activities in Response to Public Concerns
 - New ideas for public outreach activities are being sought.
 - A water bill insert was suggested.
 - WEAT has several workshop type events during the year which could mean opportunities to present/give information regarding biosolids.
 - The Audubon Society uses the old drying beds for bird watching which could mean an opportunity to speak with this group regarding biosolids.
 - Another suggestion was to reach out to FFA programs in schools.

- It was suggested to update our biosolids video which gives general information-but maybe have more landowners giving testimonials about the benefits of the program. In addition, maybe create a video that includes information about the nasal ranger and the odor studies we have conducted.

Internal EMS Audit Results

- The procedures for internal audits have changed. On the years in which we receive an external audit, we do not need to perform an internal audit.

**This was thought to be the case, but we are required to do an internal audit every year. The management team will be notified of this.*

External third-party Interim & Verification EMS audits

- The external audit from last year (Oct 17-19, 2012) resulted in 5 non-conformances.
 - All non-conformances have been addressed through CANs and only one regarding SOPs remains open as we look to finishing updating SOPs in 2015.
 - There were several opportunities for improvement and minor nonconformances which were addressed and necessary changes to the program/EMS manual were made.
 - *These are summarized in the Annual Performance Report.
- A third party audit is scheduled for October 16th-18th.

Legal and self-imposed regulation compliance

- TCEQ enforcement actions regarding drag out, odors, and wet weather storage pad were discussed.
 - Renda received an NOV for dragout-it was taken care of immediately. To prevent this in the future, they purchased mini street sweepers to keep on site during land application activities.
 - Renda also received an Notice of Enforcement for odors. Village Creek has a few projects (Landia Air Jet, a study evaluating the effects of lime and codigestion on biosolids odors, and Bioglox pilot) that are attempting to address the odor issues.
 - Renda has received an NOV for keeping biosolids at the wet weather pad longer than 7 days. They needed permission from the TCEQ director to get an extension past 7 days, Renda has until January 2014 to make improvements to the wet weather pad, which have to be certified by a PE.

Reports on emergencies, spills or other incidents

- One spill-occurred on April 22, 2013 on Greenbelt Rd. Only the pup trailer spilled. Renda responded immediately; traffic was only marginally affected.

**This was unintentionally left off the Annual Performance Report; will make sure any spills are reported in next years report.*

Corrective action notices

- Certain CANs were discussed in the meeting:
 - 2012-05: Regards SOPs-major nonconformance from last year's audit.

- A schedule has been put in place to keep us on track for the continual development of SOPs.
 - 2012-08 and 2012-09 related to SOPs as well and have been addressed.
- 2013-05: Regards Renda and NOV issued for storage pad issues.
 - Renda has until January 2014 to make necessary improvements to storage pad.
 - The 30 TAC 312.50 rule was discussed which deals with the storage of sludge
- A possible new goal might be the effects of the different polymers (from Renda, water plants, and Village Creek) on biosolids odors
 - Regarding the water plant-information regarding their basin cleanouts will be obtained to start a history that might be compared to dates when biosolids odors are bad.
 - When and the amount of sludge discharged from the plants is information that will try to be compiled.

Update to critical control points

- Major update to critical control points this past August.
 - Most changes made to monitoring and frequency columns and overall format.

Changing circumstances

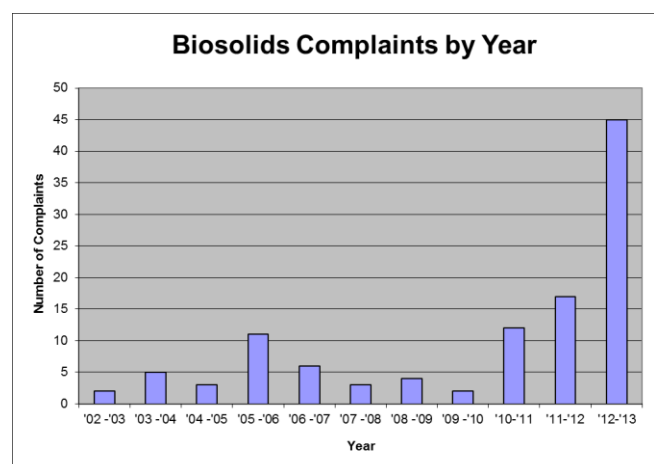
- It's possible Village Creek will be able to landfill grit in the future. We would be required to perform some testing—TCLP, metals, volatiles, semi-volatiles.
- Pretreatment will continue to test the ammonia and TKN on the filtrate water from Renda for another month.

External communication and public participation

- We now notify public officials when land application activities are to start in a given county precinct.
- We are looking for new ideas for public outreach; some of the suggestions are below:
 - Possible outreach to Audubon Society
 - Water Bill Insert
 - Outreach at WEAT activities
 - Outreach to FFA programs in schools
 - Update biosolids video, maybe make another showcasing odor studies.

Other biosolids performance measures

- We had 45 odor complaints this year.
 - The increase in odor complaints spurred our odor-related goals and objectives.
 - In the meeting there was discussion on how the complaints come through and how they're logged. It's possible a complaint



could be “double logged” if someone complains to the TCEQ and Village Creek.

New scientific/technical data on biosolids

- Landia Air Jet
 - The effectiveness has yet to be determined on the biosolids odors. However, the mixing alone will help prevent stratification within the storage tank.
- Nasal Ranger
 - In an effort to try to quantify the odor monitoring, a Nasal Ranger has been used during the site inspection along with a range finder and weather tracker.
- The incorporation of Bioglox in the biosolids for a pilot project will start soon.
 - Different concentrations will be used to see when the product ceases being effective in order to determine the necessary dosage needed.
 - Denver-Metro using a similar product.

Review status of operation control procedures

- A schedule has been put in place to continue the development of SOPs
- The goal is to complete SOPs for all remaining processing (those related to solids have been completed) by December 2015.
- SOPs will be required to be reviews every three years now according to the SOP on SOP creation.